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Discrete Geometry for Computer Imagery

12th International Conference, DGCI 2005
Poitiers, France, April 13-15, 2005
Proceedings

Springer

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Preface

In 2005, the twelfth edition of the conference Discrete Geometry for Computer Imagery was held in Poitiers, France, April 13–15, 2005. The conference was organized by the laboratory SIC ("Signal, Image, Communications") of the University of Poitiers, Centre National de la Recherche Scientifique and the Technical Committee 18 of the International Association for Pattern Recognition. DGCI 2005 was sponsored by the Faculty of Science, the University of Poitiers, the Conseil Général de la Vienne and the Region of Poitou-Charentes. The aim of the conference was to present recent advances in both theoretical aspects and applications in discrete geometry.

This year's conference was organized in combination with the 5th Workshop on Graph-Based Representations in Pattern Recognition, April 11–13, 2005 also organized in Poitiers. The workshop GbR aims at using graph-based structures in image analysis. There is a strong connection between the community interested in the GbR workshop and the discrete geometry community. For this reason, for the first time, both the workshop and the DGCI conference were organized in the same place, with a common session of four papers, two submitted to GbR and two to DGCI.

The DGCI conference attracted again for this edition many excellent papers, with 53 submitted papers from 21 countries. After careful reviewing by two and sometimes three reviewers, 36 papers were accepted, from which 22 were selected for oral presentation and 14 as posters. These contributions were regrouped into topics: applications, discrete topology, discrete hierarchical geometry, discrete tomography, object properties, recognition, and reconstruction, uncertain geometry, and visualization.

The program was completed by invited lectures from internationally known speakers: As first invited speaker we had Achille Braquelaire, who spoke about 2D images and planar maps. His contribution can be read in the GbR conference proceedings, also published by LNCS 3434. As second invited speaker, Peter Veerlaert spoke about uncertain geometry. Finally Jean-Pierre Guédon presented the Mojette Transform.

Many people contributed to the renewed success of this conference and we would like to thank them all, and in particular the authors who submitted papers and the invited speakers for their contributions. A special thanks also to the Steering Committee, and to the Program Committee whose members reviewed so many papers in a very efficient way.

Finally, we thank all the participants and we hope that they enjoyed their stay in Poitiers.

April 2005

Éric Andrès
Guillaume Damiand
Pascal Lienhardt

Organization

DGCI 2005 was organized by the Signal, Image, Communications Laboratory of the University of Poitiers in France. The conference venue was the IFMI building on the Futuroscope campus ground in Chasseneuil du Poitou. The conference was sponsored by the International Association for Pattern Recognition (IAPR).

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